

### Remarks

In the Office Action mailed January 14, 2005:

1. Claims 1-5 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,347,337 (Shah);
2. Claims 7-12, 14 and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Shah, in view of the Stallings ATM textbook (Stallings); and
3. Claims 6, 12, 16 and 18-19 were objected to but would be allowable if rewritten in independent form to include all limitations of the base claim and any intervening claims.

#### **I Shah (U.S. Patent No. 6,347,337)**

Shah is directed to a credit-based flow control scheme (title), but cannot anticipate all novel aspects of Applicants' invention.

#### **A. Shah Does Not Employ Variable Free Space**

Shah provides a credit-based flow control scheme. When a sender has data to transmit to a receiver, it determines whether it has sufficient send credits. If not, it issues a credit request to the receiver and awaits a credit response (Abstract). The receiver sends a credit response only when its receive credits (buffers available for receiving data) are above a threshold value or low water mark (column 13, lines 3-5; column 12, lines 8-9).

In a claimed embodiment of the present invention, free space in a receive buffer is monitored to determine if it is above a threshold. If free space is above the threshold, a flow control packet may be issued. The threshold may be relative to a "variable free space amount" - the lowest level of free space available monitored in the buffer since a flow control packet was last sent. For example, the threshold may equal the variable free space amount plus a predetermined offset (page 2, lines 13-18).

The Examiner cited column 8, lines 49-51 of Shah as anticipating Applicant's variable free space amount. There it is stated that "the maximum number of LRU cache entries and the minimum size of registered application buffers are kept configurable." This merely indicates that the storage space that is available for buffering incoming packets is programmable. There is no indication that these values vary during receive operations. Thus, they cannot be compared to

Applicant's variable free space amount.

Further, although Shah considers a threshold value or low water mark when determining whether to issue a credit response (column 13, lines 4-5), the threshold value is apparently static; there is no discussion of varying the threshold. And, Shah's credit response involves a simple two-step decision: (a) is the number of receive credits above the threshold? (b) if so, send the credit response.

In claimed embodiments of the invention, the variable free space is indeed variable, and is set to the lowest level of free space that existed in the receive buffer since the previous flow control packet was sent. The threshold that triggers a new flow control packet in this embodiment thus involves more steps: (a) set the variable free space amount to the lowest observed level of free space; (b) calculate the threshold based on the variable free space amount; and (c) determine whether the available free space is above the threshold.

## **II     Selected Claims**

### **A.     Claims 1-7**

Claim 1 has been amended to include the subject matter of claims 4 and 5, which were cancelled without prejudice. As described above in Section I, Shah does not appear to teach or suggest the use of a "variable free space amount" to vary a threshold for determining whether to issue a flow control packet. Claim 6 was amended to depend from claim 1 vice claim 5.

### **B.     Claims 8-14**

Claim 8 was amended to include the subject matter of claims 11 and 12, which were cancelled without prejudice. Claim 13 was amended to depend from claim 8 vice claim 12.

### **C.     Claims 15-21**

Claim 15 was amended to include the subject matter of claim 16, which was cancelled without prejudice.

## **CONCLUSION**

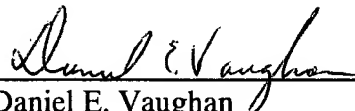
No new matter has been added with the preceding amendments. It is submitted that the application is in suitable condition for allowance. Such action is respectfully requested. If

prosecution of this application may be facilitated through a telephone interview, the Examiner is invited to contact Applicant's attorney identified below.

Respectfully submitted,

Date: February 28, 2005

By:

 42,199  
Daniel E. Vaughan (Registration No.)

**Park, Vaughan & Fleming LLP**  
702 Marshall Street, Suite 310  
Redwood City, CA 94063  
(650) 474-1973: voice  
(650) 474-1976: facsimile